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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,436	02/19/2002	Koji Fukumura	0073/009001	1551

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EXAMINER

KOVALICK, VINCENT E

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 03/09/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/076,436

Applicant(s)

FUKUMURA

Examiner

Vincent E Kovalick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7,11-15,18 and 19 is/are rejected.
- 7) ☒ Claim(s) 3,4,8-10,16,17 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 & 4. 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to Applicant's Patent Application, Serial No. 10/076,436, with a File Date of February 19, 2002.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 5, 14-15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamei et al. (USP 6,011,467) taken with Bichsel et al. (4,766,306) in view of Toshima (JP 11137720).

Relative to claims 1 and 14, Kamei et al. **teaches** a photoelectric sensing device and display method therein (col. 1, lines 40-67; col. 2, lines 1-67; col. 3, lines 1-58 and Figs. 2 and 9);

Kamei et al. further teaches a multifunctional photoelectric switch comprising: a display section for displaying one of a first display information and a second display information, the first display information including a plurality of items concerning a threshold values (col. 5, lines 23-55 and Figs. 2 and 9).

Kamei et al. **does not teach** said second display information including a plurality of items concerning functions of said photoelectric switch; or a switch for switching information to be displayed on said display section between the first display information and the second display

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information, and wherein when the second display information is displayed on said display section, only a part of the plurality of items or all of the plurality of items in the second display information are sequentially displayed on said display section.

Kamei et al. teaches a photoelectric sensing device for displaying sensing device threshold values of photoelectric sensing device.

Bichsel et al. **teaches** an apparatus with illuminated actuator for photoelectrically controlling a load (col. 1, lines 59-68; col. 2, lines 1-47); Bichsel et al. further **teaches** said second display information including a plurality of items concerning functions of said photoelectric switch (col. 2, lines 10-13)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Kamei et al. the feature as taught by Bichsel et l. in order to extend the amount of data that can be displayed of the photoelectric switch device to include data related to the functions of said photoelectric switch.

Kamei et al. taken with Bichsel et al. **does not teach** when the second display information is displayed onb said display section, only a part of the plurality of items or all of the plurality of items in the second display information are sequentially displayed on said display section.

Kamei et al. taken with Bichsel et al. teaches a photoelectric sensing device for displaying sensing device threshold values and function values of photoelectric sensing device.

Toshima **teaches** a video game machine (page 1, Abstract); Toshima further **teaches** the photoelectric switch wherein when the second display information is displayed on said display section, only a part of the plurality of items or all of the plurality of items in the second display information are sequentially displayed on said display section (page 1, Solution).

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It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Kamei et al. taken with Bichsel et al. the feature as taught by Toshima in order to provide the means to display only part of all of the data related to the functions of the photoelectric switches in a sequentially manner.

Regarding claims 2 and 15, Toshima further **teaches** said photoelectric switch wherein when the first display information is displayed on said display section, only a part of the plurality of items or all of the plurality of items in the first display information are sequentially displayed on said display section (page 1, Solution).

Relative to claims 5 and 18, Kamei et al. further **teaches** said photoelectric switch wherein said switch also switches items to be displayed on said display section (col. 5, lines 65-67 and col. 6, lines 1-26).

4. Claims 6-7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamei et al. taken with Bichsel et al. in view of Toshima as applied to claim 1 in item 3 hereinabove, and further in view of Yabuuchi (JP 363191218).

Relative to claim 6, Kamei et al. taken with Bichsel et al. in view of Toshima **does not teach** said multifunctional comprising a third display information of said photoelectric switch, the third display information including a plurality of items concerning displays of said photoelectric switch.

Regarding the issue of incorporating a third display in the photoelectric switch, this feature is rejected base on case law reading “To Duplicate Parts for a Multiplied Effect” St. Regis Paper Co. v. Bemis Co., Inc 193 USPQ 8, 11 (7th Cir. 1977).

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Kamei et al. taken with Bichsel et al. in view of Toshima teaches a photoelectric sensing device for displaying sensing device threshold values and function values of photoelectric sensing device including the feature of displaying some or all of the display information in a sequential manner.

Yabuuchi **teaches** an optical touch switch (page 1, Purpose); Yabuuchi further **teaches** the said said photoelectric switch wherein the third display information includes a plurality of items concerning displays of said photoelectric switches.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the devices as taught by Kamei et al, taken with Bichsel et al. in view of Toshima the feature as taught by Yabuuchi in order to provide the means to display the state of the various switches incorporated with the photoelectric switch.

Regarding claim 7, claim 7 is rejected based on the same reasoning as recited for claim 2 in item 3 hereinabove.

As to claim 11, claim 11 is rejected based on the same reasoning as recited for claim 5 in item 3 hereinabove.

5. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamei et al. taken with Bichsel et al. in view of Toshima as applied to claim 1 in item 3 hereinabove and further in view of an obvious conclusion.

Regarding claim 12, Kamei et al. taken with Bichsel et al in view of Toshima **does not teach** a second display information further including a fifth selection item for selecting a first display information or the items concerning the operational settings of said photoelectric switch in the second display information to display the selected items on said display section; wherein the fifth

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selection item is displayed on said display section after the items concerning basic operation setting of said photoelectric switch are displayed on said display section; said actions being in common practice in the designation, rendering in order and display of system data in a predefined sequence.

Because said feature is in common practice and well known in the art, it would have been obvious to a person of ordinary skill in the art at the time of the invention to include said feature in the device as taught by Kamei et al. taken with Bichsel et al. in view of Toshima in order to select and display the desired information in the predefined order required.

Relative to claim 13, claim 13 is rejected based on the same reasoning as recited for claim 5 in item 3 hereinabove.

Allowable Subject Matter

6. Claim 3-4, 8-10 16-17 and 20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Regarding claim 3, the major difference between the teachings of the prior art of record (Kamei et al.; Bichsel et al. and Toshima) and that of the instant invention is that said prior art of record **does not teach** said photoelectric switch wherein said display section displays a first selection item for selecting only a part of the plurality of items or all of the plurality of items in the second display information to sequentially display on said display section when the information displayed on said display section is switched from the first display information to the second display information.

Regarding claim 4, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** said photoelectric

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switch wherein the first display information includes a second selection item for selecting only a part of the plurality of items or all of the plurality of items in the first display information to sequentially display on said display.

Regarding claim 8, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** said photoelectric switch wherein the third display information includes a third selection item for selecting only a part of the plurality of items or all of the plurality of items in the first display information to sequentially display the selected items on said display section.

Regarding claim 9, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** said photoelectric switch wherein when the second display information is displayed on said display section, only a part of the plurality of items or all of the plurality of items in the second display information are sequentially displayed on said display section.

Regarding claim 10, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** said photoelectric switch wherein said display section displays a fourth selection item for selecting only a part of the plurality of items or all of the plurality of items in the second display information or the third display information to sequentially display the selected items on said display section when the information displayed on said display section is switched from the first display information to the second display information.

Regarding claim 16, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** said photoelectric

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switch comprising a means for displaying a first selection item for selecting said means for sequentially displaying some of the second plurality of items and said means for sequentially displaying all of the second plurality of items when the information displayed on said display section is switched from the first display information to the second display information.

Regarding claim 17, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** said photoelectric switch comprising a means for displaying a second selection item for selecting said means for sequentially displaying some of the first plurality of items and said means for sequentially displaying all of the first plurality of items.

Regarding claim 20, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** said photoelectric switch comprising means for sequentially displaying some of the second plurality of items and means for sequentially displaying all of the second plurality of items when the second display information is displayed on said display section; and means for sequentially displaying some of the first plurality of items and means for sequentially displaying all of the first plurality of items when the first display information is displayed on the said display section.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent No.	6,339,465	Takanashi et al.
U. S. Patent No.	5,604,386	Nagai et al.
U.S. Patent No.	4,501,485	Tsudaka.

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Responses


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent E Kovalick whose telephone number is 703 306-3020.

The examiner can normally be reached on Monday-Thursday 7:30- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 703 305-4938. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 306-0377.


Vincent E. Kovalick
March 4, 2004


BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600